RehabWorks

Athletic Shoes: Finding a Good Match

D.R. Martin – Physician and Sports Medicine-Vol 25-No.9-September '97

When you walk into an athletic-shoe store, chances are you'll be overwhelmed by the selection and feel the marketing magnet of sports celebrities and their namesake shoes. Superstores may carry hundreds of different joggers from a dozen major brands. And the same goes for most other types of athletic shoes, from walkers and cross-trainers to basketball shoes and football cleats.

Finding the Right Shoe

Just as human feet vary, so do sports and fitness levels. For example, if you only jog a little every week and play some basketball in the driveway from time to time, an all-purpose cross-training shoe should be fine. But if you do a certain sport or activity three or more times a week, you should wear shoes specific to that sport or activity; they may help you avoid injuries such as "shin splints" or ankle sprains.

In general, people who run or do aerobics need shoes with a lot of impact-absorbing cushioning. Walkers need shoes that have extra shock absorption at the heel as well as soles that provide a good roll off the toes. People who play court sports need shoes that help keep the ankle stable during side-to-side movements, which means that the sole can't be too thick.

Which Features Do I Need?

To begin with, you should know if your feet have high, medium, or low arches. It's easy to tell which kind you have. Just wet the bottom of your bare foot and make a footprint on a hard surface. If the forefoot and heel areas are connected by a thin line, you have high-arched feet. If the footprint looks pretty much like the shape of your foot, you have a low arch. A medium arch falls somewhere in between. For your high-arched foot — because it's not very flexible — you'd ask to see a cushioned shoe. If you're flat-footed, your feet are too flexible, and you'd ask for a motion control shoe. Those who have medium arches would request something in the middle, sometimes called a stability shoe. Keep in mind any foot problems you've had and try to find a shoe that can accommodate them. Do you have a history of ankle sprains? Then perhaps you should have a high-topped shoe for better ankle support. Have you had deep arch pain? Maybe you need a special arch support. Do you have bunions? Then you need a shoe with a wide toe box.

Getting the Right Fit

The American Orthopaedic Foot and Ankle Society makes several recommendations for getting a good fit:

Have your feet measured when they are at their largest:
At the end of the day or after a run, walk, game, or practice.
Wear your workout socks.
Have both feet measured.
Try on the shoes, because sizes vary by manufacturer.
Make sure both shoes fit.
Ensure that the shoe provides at least one thumb's width of space from the longest toe to the end of the toe box.

Shoes should also feel comfortable through the arch, fit well across the ball of the foot, and hold the heel firmly. Women should be cautious when selecting shoes. Downsized men's shoes have long been offered as "women's" shoes, and some still are. But their heels can be too loose, which prompts women to wear smaller sizes that can cause problems. Women should seek out shoes that fit their feet properly. Some companies, including Nike, Asics, and Reebok, now offer models specifically designed for women's feet. Saucony is noted for shoes that fit women's feet well, because its shoes tend to have narrower heels.

For more information contact RehabWorks at 867-7497 or through our web site at http://rehabworks.ksc.nasa.gov

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Working Together to Launch a New You

Synergy

KSC FITNESS CENTER

Jan/Feb

For Your Spirit...

This Isn't A Dress Rehearsal.

You've probably heard the expression "life's not a dress rehearsal." Unfortunately, many of us unconsciously act as if it were. Like actors just going through the motions in order to conserve our creative energy and focus for opening night, we hold back. Perhaps you save the pretty china for when company comes; perhaps you rarely dress up when you're home alone. If we're not playing to an audience, does it really matter?

That's a good question to ask ourselves as the New Year begins and we examine the quality of our real life journey. It does take more effort to set an inviting table, but it enhances our enjoyment of eating. We all feel better when we take those few extra minutes to fix our hair or put on nice clothes, but what's more, we *act* different. Every actor knows the magic power of props and costumes to create special moods both onstage and off.

None of us can be expected to perform every minute of our lives. But a lot of us might tap into the power, excitement, and glory of Real Life more frequently if we cast ourselves as the leading ladies or gentlemen in our own lives.

From the book, "Simple Abundance, A Daybook of Comfort and Joy",
by Sarah Ban Breathnach

For Your Mind...With A Focus On Love.

Valentine's Day brings out special feelings, with a focus on love, for special people in your life. Expressed in affectionate ways when children exchange Valentines in school, and later in life by flowers, cards, candy, or other gifts, as people try to express their affection for each other.

Pause a minute and consider the feelings of those who have lost their Valentine to death, divorce or some other change. For these individuals, Valentine's Day may be not only difficult, but also unwanted.

Instead of joy, excitement and happiness, the person experiencing loss may be feeling:
- Grief and mourning
- Shock and numbness
- Anger and bitterness
- Depression and lonliness

If you're the person experiencing the loss, try to avoid isolation. Call a friend for dinner, seek the company of a singles or divorce recovery group, or have your own Valentine's party and invite family and friends.

Recognize that this is a milestone that must be faced and put behind you. The process of healing involves the experience of pain associated with the memories of the holidays, anniversaries, special occasions and so on. The process of moving through these painful events allows the mind the opportunity to assign meaning to loss and eventually move on with your life.

Avoid an unhealthy escape by attempting to numb the pain with alcohol and drugs. Seek professional counseling if the pain of loss begins to cause weight changes, persistent sleep problems, or thoughts of self-injurious behavior.

If you're trying to provide solace to an individual suffering from loss, be a friend who's available to listen and express care and concern. Empathy is often the greatest gift you can offer. Don't say you know how the other person feels because you can only experience your own feelings. Don't say that things will be better soon because everyone has to heal and move forward at their own rate. Be a good sounding board who cares and remember these people as well as your loved one this Valentine's Day.

Source: Total Wellness

KSC Fitness Center Activities

January

National Blood Donor's Month
January 3rd – Fitness Centers reopen
January 28th – American Red Cross Blood Drive in the O&C Aerobics Studio
Lunch and Learn: "Foot Care in Exercise"
Are your feet hurting so badly that you would pay top dollar just to have someone rub them? Are you having a hard time finding the proper pair of shoes for exercising? Do you have a previous foot or ankle injury that always seems to haunt you right in the middle of your favorite activity? Well, we have just the class for you. The "Foot Care in Exercise" Lunch and Learn will discuss proper shoe fitting, injury prevention, proper exercises, and how to care for specific foot and ankle injuries. The 1 hour long "Main Event" on January 19th in the O&C Aerobics Studio at 12 noon will include medical professionals from the foot care industry, foot/ankle product reps and a Q&A period to help you with those "aching" questions. Call 867-7829 to sign up.

If you can't make it to the "Main Event," watch for the 30 minute Lunch and Learn coming to your area: January 26th in the OSB Room 3316 @ 11a.m. / February 6th in the CCAS @ 11a.m. / February 9th in HQ @ 11a.m.

February

American Heart Month
Lunch and Learn: "Dehydration in Exercise"
Many of us love to exercise, especially under the hot Florida sun. You know what we mean… the all day softball tournament, the 5 mile run at lunch time, the golf outing with your co-workers, your family picnic or even….yard work! Whenever you enter an activity that increases your heart rate and causes your body's core temp to elevate you are in jeopardy of dehydrating yourself. The "Dehydration in Exercise" Lunch and Learn will help you prepare for the upcoming heat wave. We will discuss signs and symptoms of dehydration and educate you on how to prevent dehydration from occurring during and after exercise. Don't miss the 1 hour long "Main Event"on February 24th in the O&C Aerobics Studio at 12 noon!!! Call 867-7829 to sign up.

WEBSITE: http://fitness.ksc.nasa.gov

For Your Body…

Are You Using The Best Walking Technique?

You know that walking regularly can mitigate or even prevent a host of conditions ranging from obesity to heart disease. But do you know how to walk to get the most out of your exercise sessions? Here are some pointers.

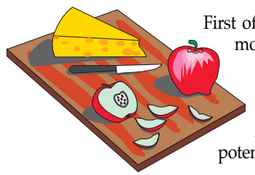
- Aim for a confident, "walk tall" posture, which means keeping your head high, shoulders down and back, stomach in, and buttocks under. Slouching over compresses your organs and diaphragm (the muscle that moves the lungs), making it difficult to breathe as deeply as you could with good posture.
- Start at a comfortable pace with even steps. Gradually pick up speed, but don't shoot for an overly long stride. It won't burn extra calories or work your muscles any better.
- Let your arms swing freely and rhythmically, using them to help power you along. Moving your arms while walking also helps give you balance and works more muscle groups in the process.
- Take full, relaxed breaths. "People often hold their breath during exercise-it's an unconscious behavior," says Jennifer Layne, an exercise physiologist at Tufts. But not breathing freely means short delays in getting oxygen to all your body tissues as you move along.
- Try to work up to a brisk pace. If you're not moving at a pace that's fast enough to deepen your breathing and make your heart beat faster, you may be burning a few calories and even lifting your mood-but you're not strengthening your heart and lungs or improving your endurance. In other words, if you're not challenging yourself at all, you're not engaging in aerobic conditioning.

Source: Tufts University Health & Nutrition Letter

Weight Loss Programs

How to Tell the Losers from the "Losers"

We would all like weight loss to be easy. And that's why diet programs with claims of fast and effortless weight loss are attractive. But how do you know if a diet is safe and effective, or just another waste of time and money?



First of all, be wary of weight loss plans that focus more on body chemistry than calorie counting. Question those that claim fast weight loss by eating only one type of food, or that claim certain foods can burn fat. You could be in for a big disappointment, not to mention potentially risking your health.

And run, don't walk from programs that don't emphasize increased physical activity in combination with reduced food intake. Although you can lose weight on many diet plans, only permanent lifestyle changes in diet and exercise will keep from flying back like a boomerang.

How to Recognize Fad Diets

Signs of Failure

- Lacks recommendation for increased physical activity.
- Claims major, rapid weight loss with no mention of long-term success rate.
- Claims rapid weight loss, greater than 2 pounds per week.
- Lacks advice to check with your doctor first, particularly if you are diabetic or have high blood pressure.
- Emphasizes miracle foods or supplements that burn fat or change body chemistry.
- Uses large quantities of only one kind of food.
- Would be "unnatural" to continue for any length of time.

Signs of Success

- Advises exercise in combination with diet.
- Has data on long-term success, not just immediate results.
- Offers flexibility in food choices.
- Has access to professional staff qualified in nutrition.
- Emphasizes long-term lifestyle changes rather than a short-term crash diet.
- Has follow-up and support.
- Uses balanced meal plans with "normal" foods/USDA Food Guide Pyramid.
- Recommends a weight loss of 1 to 2 pounds a week.

Want to lose a few pounds after the holidays? Fools rush in… The surest method of permanent weight loss is slow and sensible! To meet with a nutritionist, call Cathy Chmelir at 867-7829.

Are reduced-Fat Snacks a Help – or Hindrance?

Reduced-fat chips and crackers sound like a dream come true: appealing, satisfying treats with far fewer calories than their high-fat cousins. Thanks to the introduction of several new fat substitutes (substances manufactured from a protein, carbohydrate, or fat base), a plethora of foods now claims to achieve this worthy goal of being low fat. But until recently, fried snacks remained resplendent in their decadence, largely because no substitute could withstand the high temperatures required for their preparation.

Olestra (Olean)-a new fat substitute that resists heat and cuts in the half the amount of calories normally associated with deep-fried snacks-promises to deliver reduced-guilt chips and crackers. Properly used, it may help some people lower their total fat intake. The hope is that such reductions will lead to health benefits, including better weight control, a more favorable cholesterol profile, and a reduced risk of heart disease.

But reduced-fat foods still contain calories from other ingredients. Some experts are concerned that olestra might encourage people to increase their intake of snacks, inadvertently leading to an increase in calories and /less room for more nutritious foods. They also worry about the possibility that olestra may cause gastrointestinal symptoms or lead to certain nutritional deficiencies.

Can Olestra deliver?

Some experts remain concerned about the potential of long- and short-term problems, while others believe olestra may be of great benefit. A recent study in the Journal of the American Medical Association is reassuring. It compared the effects of eating regular or olestra-fried chips at one sitting. Researchers divided 1,123 volunteers into two groups. One group received an unmarked 13-ounce bag of olestra chips, while the other received an unmarked bag of regular chips. They were then ushered into a complementary movie and asked to munch.

In follow-up phone interviews, researchers found that about the same number of volunteers in each group (16% in the olestra group and 18% in the group receiving regular chips) reported some degree of post-snack discomfort. Among the gastrointestinal symptoms mentioned were gas, diarrhea, and abdominal cramps.

One of the most important questions is whether eating olestra-fried snacks will help people manage their weight and lower their blood cholesterol levels. A serving of regular chips has 150 calories, compared with only 75 for chips made with olestra. Thus, if a person accustomed to eating one serving of regular chips a day replaces it with the same amount of olestra chips and maintains his regular eating habits, he could theoretically eliminate enough calories to shed about eight pounds by the end of a year.

Everyone should get no more than 25 to 30% of their calories from fat – a difficult task for many Americans. Dietary changes emphasizing fruits, vegetables, and whole grains are the best approach. But if you wish to include fried snacks in your diet, products prepared with olestra may be a good way to cut down on fat. Another alternative: baked versions of these snacks. On the other hand, if you don't already eat salty, deep-fried snacks, advent of olestra is not a good reason to start!

Source: The John Hopkins Medical Letter: Health After 50

30-MINUTE CIRCUIT WORKOUT

Need a break from your traditional workout, or need a total body workout in a short period of time?

Use light weights (about 50% of max) and move continuously. Don't rest between exercises. You should be able to perform 25-30 reps for each weight training segment.

- 2 min — Warm up – march in place, walk on treadmill, cycle.
- 1 min — Tricep Kickback/Squat – Hold dumbbell in each hand near your waist. Squat and straighten arms behind you, moving forearms only. Bring hands back to waist as you stand up.
- 3 min — Aerobic- Jump rope, treadmill, cycle, stairmaster, jumping jacks, etc.
- 1 min — Squat Press – Standing with feet slightly wider than shoulder width apart, hold dumbbell in each hand just above shoulders. Squat and press dumbbells straight overhead. Keep knees in line with ankles as you squat. Lower weight as you press up from squat.
- 3 min — Aerobic
- 1 min — Deadlift – Standing with feet slightly wider than shoulder width apart, hold dumbbell in each hand, resting on thighs. Keeping shoulders down, knees slightly bent, bend at hips, lowering the dumbbells until back is flat. Keep head up, arms straight and weight close to body.
- 3 min — Aerobic
- 1 min — Hammer Curl/Squat – Standing with feet slightly wider than shoulder width apart, hold dumbbell in each hand, elbows pulled in to waist, palms facing each other. Squat and lift weight towards shoulders, keeping elbows in tight to waist. Keep knees in line with ankles as you squat. Lower as you press up from squat.
- 3 min — Aerobic
- 1 min — Upright Row/Squat – Standing with feet slightly wider than shoulder width apart, hold dumbbell in each hand against thighs. Squat and lift weights straight up against body to chin, keeping elbows high. Lower weights as you press up from squat. Be sure to keep wrists straight at all times.
- 3 min — Aerobic cool down - walk slowly, march in place, etc.
- 1 min — Push ups
- 1 min — Abdominal crunches
- 3 min — Stretch all major muscle groups

How does emotional stress lead to coronary heart disease?

Coronary heart disease – the blockage in the coronary arteries and reduced blood flow to the heart – is the end product of a chain of events that occur over a lifetime.

Emotional stress comes in two basic categories: acute and chronic. We are designed to cope with acute stress much better than with chronic stress. The body responds to stress – whether emotional stress (perceived danger) or physical stress (extreme temperature changes or exertion) – by activating a series of mechanisms collectively known as the fight-or-flight response, which prepares us either to fight or run.

The body does this in two ways. First, there are direct connections between your brain and your heart. These nerves, called the sympathetic nervous system, stimulate receptors in the heart that make it beat faster and harder and can cause the coronary arteries to constrict. Second, the brain causes other organs, such as your adrenal glands, to secrete stress hormones such as adrenaline and steroids such as cortisol, which circulate in the blood until they reach the heart. Acute stress tends to cause rises in production of adrenaline and its relative, noradrenaline, whereas chronic stress causes increases in cortisol production.

As a result of signals from these hormones, a series of physiological reactions occur:

- Our muscles begin to contract, thereby fortifying our "body armor." We are more protected from bodily injury.
- Our metabolism speeds up, providing more strength and energy with which to fight or run. Both our heart rate and the amount of blood pumped with each beat increase.
- Our rate of breathing begins to increase, providing more oxygen to do battle or to run from danger.
- Our digestive system begins to shut down, diverting more blood and energy to the large muscles needed to fight or run.
- The pupils of our eyes begin to dilate, aiding vision. Other senses such as hearing also become heightened.
- We feel an urge to urinate and move the bowels, to reduce the danger of infection if abdominal injury should occur.
- Arteries in our arms and legs begin to constrict, so that less blood will be lost if we become wounded or injured.
- Our blood clots more quickly, so we'll lose less blood if we become wounded or injured.

Unfortunately, emotional stress today tends to be chronic rather than acute. When our stress mechanisms are chronically activated, the same responses that are designed to protect us can become harmful – even lethal. Arteries constrict not just in our arms and legs but also inside our hearts. Blood clots are more likely to form inside our coronary arteries.

The ability to respond to stress and the ability to relax are equally important in being able to function effectively while remaining healthy. The ideal response is to respond to challenges or difficult situations fast and efficiently and then to relax. Remember that exercise can play a major part in stress management.

Source: Dr. Dean Ornish's Program for Reversing Heart Disease